

AMENDMENTS TO THE CLAIMS

51. (Currently Amended) A microencapsulation process comprising:

a) adding a core material and an oil having a melting point above about 110
Deg. F., ~~without added water~~, into a high shear mixer;

b) mixing the core material and the oil until microencapsulated particles are formed that comprise the core material and the oil, said microencapsulated particles being formed without dissolving or dispersing the core material or oil with solvent;

and

c) discharging the microencapsulated particles;

with the proviso that no classification step is performed during the microencapsulation process.

52. (Currently Amended) The microencapsulation process of claim 51, ~~wherein discharging the microencapsulated particles comprises further comprising the step of~~ cooling the microencapsulated particles.

53. (Previously Added) The microencapsulation process of claim 51, wherein mixing the core material and the oil comprises mixing at a mixer work input sufficient to melt the oil.

54. (Previously Added) The microencapsulation process of claim 51, wherein the mixer comprises a heated jacket, and wherein the heated jacket heats the mixer sufficiently to melt the oil upon addition of the oil to the mixer.

55. (Previously Added) The microencapsulation process of claim 51 wherein the core material comprises ace-inhibitors; anti-anginal drugs; anti-arrhythmias; anti-asthmatics; anti-cholesterolemics; anti-convulsants; anti-depressants; anti-diarrhea preparations; anti-histamines; anti-hypertensive drugs; anti-infectives; anti-inflammatory agents; anti-lipid agents; anti-manics; anti-nauseants; anti-stroke agents; anti-thyroid preparations; anti-tumor drugs; anti-tussives; anti-uricemic drugs; anti-viral agents; acne drugs; alkaloids; amino acid preparations; anabolic drugs; analgesics; anesthetics; angiogenesis inhibitors; antacids; antiarthritics; antibiotics; anticoagulants; antiemetics; antiobesity drugs; antiparasitics; antipsychotics; antipyretics; antispasmodics; antithrombotic drugs; anxiolytic agents; appetite stimulants; appetite suppressants; beta blocking agents; bronchodilators; cardiovascular agents; cerebral dilators; chelating agents; cholecystokinin antagonists;

chemotherapeutic agents; cognition activators; contraceptives; coronary dilators; cough suppressants; decongestants; deodorants; dermatological agents; diabetes agents; diuretics; emollients; enzymes; erythropoietic drugs; expectorants; fertility agents; fungicides; gastro-intestinal agents; growth regulators; hormone replacement agents; hyperglycemic agents; hypnotics; hypoglycemic agents; laxatives; migraine treatments; mineral supplements; mucolytics; narcotics; neuroleptics; neuromuscular drugs; NSAIDS; nutritional additives; peripheral vaso-dilators; polypeptides; prostaglandins; psychotropics; renin inhibitors; respiratory stimulants; steroids; stimulants; sympatholytics; thyroid preparations; tranquilizers; uterine relaxants; vaginal preparations; vaso-constrictors; vaso-dilators; vertigo agents; vitamins; wound healing agents; botanical substances; fungicides, fertilizers, niacin, L-arginine, creatine monohydrate, L-carnitine, aspirin, loratadine, lovastatin, vitamin C, garlic powder, polygonum cuspidatum root extract, astaxanthin, tocotrienol or co-enzyme Q-10.

57. (Previously Amended) The microencapsulation process of claim 51, wherein the oil having a melting point above about 110 Deg. F is a hydrogenated soy oil with a melting point of about 160 degrees F.

58. (Currently Amended) The microencapsulation process of claim 51 wherein the oil having a melting point above about 110 Deg. F is present in an amount of ~~about from~~ 3% to 50% 30% by weight in the finished microencapsulated particle.

59. (Currently Amended) The microencapsulation process of claim 51 wherein the oil having a melting point above about 110 Deg. F is present in an amount of ~~about from~~ 3% to 20% by weight in the finished microencapsulated particle.

60. (Currently Amended) The microencapsulation process of claim 51 wherein the oil having a melting point above about 110 Deg. F is present in an amount of ~~about from~~ 3% to 10% by weight in the finished microencapsulated particle.

61. (Previously Added) The microencapsulation process of claim 51, wherein mixing the core material and the oil further comprises mixing a sugar or a mineral with the core material and the oil.

62. (Previously Added) The microencapsulation process of claim 61, wherein the sugar is present in the melt from 1-30% by weight of finished microencapsulated particles.

63. (Previously Added) The microencapsulation process of claim 61, wherein the sugar is selected from the following; sucrose, dextrose, lactose, polydextrose, maltodextrin, and maltose.

64. (Previously Added) The microencapsulation process of claim 61, wherein the mineral is present in the melt from 1-20% by weight of the finished microencapsulated particles.

65. (Currently Amended) A microencapsulation process comprising:

- a) adding a core material, and an oil having a melting point above about ~~100~~¹¹⁰ Deg. F., ~~without added water~~, into a high shear mixer;
- b) simultaneously fluidizing and mixing the core material and the oil until microencapsulated particles are formed that comprise the core material and the oil, said microencapsulated particles being formed without dissolving or dispersing the core material or oil with solvent; and
- c) discharging the microencapsulated particles.

66. (Previously Added) The microencapsulation process of claim 65, wherein the fluidizing and mixing of the core material and the oil are performed using a screw auger.

67. (Previously Added) The microencapsulation process of claim 65, wherein discharging the microencapsulated particles comprises cooling the microencapsulated particles.

68. (Previously Added) The microencapsulation process of claim 65, wherein mixing the core material and the oil comprises mixing at a mixer work input sufficient to melt the oil.

69. (Previously Added) The microencapsulation process of claim 65, wherein the mixer comprises a heated jack, and wherein the heated jacket heats the mixer sufficiently to melt the oil upon addition of the oil to the mixer.

70. (Previously Amended) The microencapsulation process of claim 65 wherein the core material is selected from the group consisting of ace-inhibitors; anti-anginal drugs; anti-arrhythmias; anti-asthmatics; anti-cholesteroleemics; anti-convulsants; anti-depressants; anti-diarrhea preparations; anti-histamines; anti-

hypertensive drugs; anti-infectives; anti-inflammatory agents; anti-lipid agents; anti-manics; anti-nauseants; anti-stroke agents; anti-thyroid preparations; anti-tumor drugs; anti-tussives; anti-uricemic drugs; anti-viral agents; acne drugs; alkaloids; amino acid preparations; anabolic drugs; analgesics; anesthetics; angiogenesis inhibitors; antacids; antiarthritics; antibiotics; anticoagulants; antiemetics; antiobesity drugs; antiparasitics; antipsychotics; antipyretics; antispasmodics; antithrombotic drugs; anxiolytic agents; appetite stimulants; appetite suppressants; beta blocking agents; bronchodilators; cardiovascular agents; cerebral dilators; chelating agents; cholecystokinin antagonists; chemotherapeutic agents; cognition activators; contraceptives; coronary dilators; cough suppressants; decongestants; deodorants; dermatological agents; diabetes agents; diuretics; emollients; enzymes; erythropoietic drugs; expectorants; fertility agents; fungicides; gastro-intestinal agents; growth regulators; hormone replacement agents; hyperglycemic agents; hypnotics; hypoglycemic agents; laxatives; migraine treatments; mineral supplements; mucolytics; narcotics; neuroleptics; neuromuscular drugs; NSAIDS; nutritional additives; peripheral vaso-dilators; polypeptides; prostaglandins; psychotropics; renin inhibitors; respiratory stimulants; steroids; stimulants; sympatholytics; thyroid preparations; tranquilizers; uterine relaxants; vaginal preparations; vaso-constrictors; vaso-dilators; vertigo agents; vitamins; wound healing agents; botanical substances; fungicides; fertilizers; niacin; L-arginine; creatine monohydrate; L-carnitine; aspirin; loratadine; lovastatin; vitamin C; garlic powder; polygonum cuspidatum root extract; astaxanthin; tocotrienol and co-enzyme Q-10.

71. (Previously Added) The microencapsulation process of claim 65 wherein the oil having a melting point above about 110 Deg. F comprises a vegetable oil with a melting point between 120 degrees F and 200 degrees F.

72. (Previously Amended) The microencapsulation process of claim 65, wherein the oil having a melting point above about 110 Deg. F is a hydrogenated soy oil with a melting point of about 160 degrees F.

73. (Currently Amended) The microencapsulation process of claim 65 wherein the oil having a melting point above about 110 Deg. F is present in an amount of about from 3% to 50% 30% by weight in the finished microencapsulated particle.

74. (Currently Amended) The microencapsulation process of claim 65 wherein the oil having a melting point above about 110 Deg. F is present in an amount ~~of about from~~ 3% to 20% by weight in the finished microencapsulated particle.

75. (Currently Amended) The microencapsulation process of claim 65 wherein the oil having a melting point above about 110 Deg. F is present in an amount ~~of about from~~ 3% to 10% by weight in the finished microencapsulated particle.

76. (Previously Added) The microencapsulation process of claim 65, wherein mixing the core material and the oil further comprises mixing a sugar or a mineral with the core material and the oil.

77. (Previously Added) The microencapsulation process of claim 76, wherein the sugar is present in the melt from 1-30% by weight of finished microencapsulated particles.

78. (Previously Added) The microencapsulation process of claim 76, wherein the sugar is selected from the following: sucrose, dextrose, lactose, polydextrose, maltodextrin, and maltose.

79. (Previously Added) The microencapsulation process of claim 76, wherein the mineral is present in the melt from 1-20% by weight of the finished microencapsulated particles.

80. (Currently Amended) A microencapsulation process comprising:

- adding a core material, and an oil having a melting point above about 110 Deg. F., ~~without added water~~, into a high shear mixer;
- mixing the core material and the oil, at a mixer work input ranging from 600 RPM to 2000 RPM, until microencapsulated particles are formed that comprise the core material and the oil, said microencapsulated particles being formed without dissolving or dispersing the core material or oil with solvent; and
- discharging the microencapsulated particles.

81. (Previously Added) The microencapsulation process of claim 80, wherein discharging the microencapsulated particles comprises further comprising the step of cooling the microencapsulated particles.

82. (Previously Added) The microencapsulation process of claim 80, wherein mixing the core material and the oil comprises mixing at a mixer work input sufficient to melt the oil.

83. (Previously Added) The microencapsulation process of claim 80, wherein the mixer comprises a heated jacket, and wherein the heated jacket heats the mixer sufficiently to melt the oil upon addition of the oil to the mixer.

84. (Previously Amended) The microencapsulation process of claim 80 wherein the core material is selected from the group consisting of ace-inhibitors; anti-anginal drugs; anti-arrhythmias; anti-asthmatics; anti-cholesteroleemics; anti-convulsants; anti-depressants; anti-diarrhea preparations; anti-histamines; anti-hypertensive drugs; anti-infectives; anti-inflammatory agents; anti-lipid agents; anti-manics; anti-nauseants; anti-stroke agents; anti-thyroid preparations; anti-tumor drugs; anti-tussives; anti-uricemic drugs; anti-viral agents; acne drugs; alkaloids; amino acid preparations; anabolic drugs; analgesics; anesthetics; angiogenesis inhibitors; antacids; antiarthritics; antibiotics; anticoagulants; antiemetics; antobesity drugs; antiparasitics; antipsychotics; antipyretics; antispasmodics; antithrombotic drugs; anxiolytic agents; appetite stimulants; appetite suppressants; beta blocking agents; bronchodilators; cardiovascular agents; cerebral dilators; chelating agents; cholecystokinin antagonists; chemotherapeutic agents; cognition activators; contraceptives; coronary dilators; cough suppressants; decongestants; deodorants; dermatological agents; diabetes agents; diuretics; emollients; enzymes; erythropoietic drugs; expectorants; fertility agents; fungicides; gastro-intestinal agents; growth regulators; hormone replacement agents; hyperglycemic agents; hypnotics; hypoglycemic agents; laxatives; migraine treatments; mineral supplements; mucolytics; narcotics; neuroleptics; neuromuscular drugs; NSAIDS; nutritional additives; peripheral vaso-dilators; polypeptides; prostaglandins; psychotropics; renin inhibitors; respiratory stimulants; steroids; stimulants; sympatholytics; thyroid preparations; tranquilizers; uterine relaxants; vaginal preparations; vaso-constrictors; vaso-dilators; vertigo agents; vitamins; wound healing agents; botanical substances; fungicides; fertilizers; niacin; L-arginine; creatine monohydrate; L-carnitine; aspirin; loratadine; lovastatin; vitamin C; garlic powder; polygonum cuspidatum root extract; astaxanthin; tocotrienol and co-enzyme Q-10.

85. (Previously Added) The microencapsulation process of claim 80 wherein the oil having a melting point above about 110 Deg. F comprises a vegetable oil with a melting point between 120 degrees F and 200 degrees F.

86. (Previously Amended) The microencapsulation process of claim 80, wherein the oil having a melting point above about 110 Deg. F is a hydrogenated soy oil with a melting point of about 160 degrees F.

87. (Currently Amended) The microencapsulation process of claim 80 wherein the oil having a melting point above about 110 Deg F. is present in an amount ~~of about from~~ ~~3% to 50% 30%~~ by weight in the finished microencapsulated particle.

88. (Currently Amended) The microencapsulation process of claim 80 wherein the oil having a melting point above about 110 Deg. F is present in an amount ~~of about from~~ ~~3% to 20%~~ by weight in the finished microencapsulated particle.

89. (Currently Amended) The microencapsulation process of claim 80 wherein the oil having a melting point above about 110 Deg. F is present in an amount ~~of about from~~ ~~3% to 10%~~ by weight in the finished microencapsulated particle.

90. (Previously Added) The microencapsulation process of claim 80, wherein mixing the core material and the oil further comprises mixing a sugar or a mineral with the core material and the oil.

91. (Previously Added) The microencapsulation process of claim 90, wherein the sugar is present in the melt from 1-30% by weight of finished microencapsulated particles.

92. (Previously Added) The microencapsulation process of claim 90, wherein the sugar is selected from the following; sucrose, dextrose, lactose, polydextrose, maltodextrin, and maltose.

93. (Previously Added) The microencapsulation process of claim 90, wherein the mineral is present in the melt from 1-20% by weight of the finished microencapsulated particles.

94. (Currently Amended) A sustained-release pharmaceutical composition for oral delivery comprising a microencapsulated core material, wherein the microencapsulated core material is microencapsulated by a formulation that consists

essentially of an animal or vegetable oil with a melting point above about 110 Deg. F.,
wherein the animal or vegetable oil is present at from 3% to 20% by weight of the
sustained-release pharmaceutical composition, said sustained-release pharmaceutical
composition being present in an oral dosage form.

95. (Canceled)

96. (Previously Amended) The pharmaceutical composition of claim 94, wherein the core material is selected from the group consisting of ace-inhibitors; anti-anginal drugs; anti-arrhythmias; anti-asthmatics; anti-cholesteroleemics; anti-convulsants; anti-depressants; anti-diarrhea preparations; anti-histamines; anti-hypertensive drugs; anti-infectives; anti-inflammatory agents; anti-lipid agents; anti-manics; anti-nauseants; anti-stroke agents; anti-thyroid preparations; anti-tumor drugs; anti-tussives; anti-uricernic drugs; anti-viral agents; acne drugs; alkaloids; amino acid preparations; anabolic drugs; analgesics; anesthetics; angiogenesis inhibitors; antacids; antiarthritics; antibiotics; anticoagulants; antiemetics; antiobesity drugs; antiparasitics; antipsychotics; antipyretics; antispasmodics; antithrombotic drugs; anxiolytic agents; appetite stimulants; appetite suppressants; beta blocking agents; bronchodilators; cardiovascular agents; cerebral dilators; chelating agents; cholecystokinin antagonists; chemotherapeutic agents; cognition activators; contraceptives; coronary dilators; cough suppressants; decongestants; deodorants; dermatological agents; diabetes agents; diuretics; emollients; enzymes; erythropoietic drugs; expectorants; fertility agents; fungicides; gastro-intestinal agents; growth regulators; hormone replacement agents; hyperglycemic agents; hypnotics; hypoglycemic agents; laxatives; migraine treatments; mineral supplements; mucolytics; narcotics; neuroleptics; neuromuscular drugs; NSAIDS; nutritional additives; peripheral vaso-dilators; polypeptides; prostaglandins; psychotropics; renin inhibitors; respiratory stimulants; steroids; stimulants; sympatholytics; thyroid preparations; tranquilizers; uterine relaxants; vaginal preparations; vaso-constrictors; vaso-dilators; vertigo agents; vitamins; wound healing agents; botanical substances; fungicides; fertilizers; niacin; L-arginine; creatine monohydrate; L-carnitine; aspirin; loratadine; lovastatin; vitamin C; garlic powder; polygonum cuspidatum root extract; astaxanthin; tocotrienol and co-enzyme Q-10.

97. (Previously Added) The pharmaceutical composition of claim 94, wherein the oil having a melting point above about 110 Deg. F comprises a vegetable oil with a melting point between 120 degrees F and 200 degrees F.

98. (Previously Amended) The pharmaceutical composition of claim 94, wherein the oil having a melting point above about 110 Deg. F is a hydrogenated soy oil with a melting point of about 160 degrees F.

99. (Canceled)

100. (Canceled)

101. (Currently Amended) The pharmaceutical composition of claim 94, wherein the oil having a melting point above about 110 Deg. F is present in an amount of about from 3% to 10% by weight in the finished microencapsulated particle sustained-release pharmaceutical composition.

102. (Previously Added) The pharmaceutical composition of claim 94, further comprising a sugar or a mineral.

103. (Currently Amended) The pharmaceutical composition of claim 102, wherein the sugar is present in the melt from 1-30% by weight of finished microencapsulated particles sustained-release pharmaceutical composition.

104. (Previously Added) The pharmaceutical composition of claim 102, wherein the sugar is selected from the following; sucrose, dextrose, lactose, polydextrose, maltodextrin, and maltose.

105. (Currently Amended) The pharmaceutical composition of claim 102, wherein the mineral is present in the melt from 1-20% by weight of the finished microencapsulated particles sustained-release pharmaceutical composition.

106. (Canceled)

107. (Previously Added) The pharmaceutical composition of claim 94, wherein the animal or vegetable oil is soy oil having a maximum iodine value of 5.0.